

# Culberson Solar Array Case Study

*"ESA is committed to developing innovative strategies to expand the use of solar power. We are developing numerous large scale multi-megawatts projects throughout North Carolina to facilitate this expansion."*

*-Jeffrey Burkett, President*



**Location:** Culberson, North Carolina  
**Utility:** Tennessee Valley Authority  
**System Size:** 999kW  
**Footprint:** 5 acres  
**Scope of Work:** EPC, O&M and Monitoring  
**Construction Start Date:** March 2011  
**Construction Completion Date:** May 2011  
**Modules:** Canadian Solar CS6P-P 235kW  
**Inverters:** Advanced Energy 260kW  
**Monitoring System:** ESA Renewables  
**Annual output:** 1.3 million + kWh

ESA Renewables, LLC (ESA) secured a 10 year Power Purchase Agreement with Tennessee Valley Authority and Blue Ridge Mountain EMC to construct a solar farm in Culberson, North Carolina. Before construction of the 999kW system began, approximately 700 trucks of dirt were brought in to avoid potential erosion issues. The original contour of the land could have negatively affected permitting and the future energy production of the system. ESA worked quickly to level the terrain and maximize the land's potential to produce high returns on investment.

The Culberson installation is expected to generate more than 1.3 million kWh of electricity annually, providing the Culberson community with clean, affordable power. The solar system is situated on one third of a 16 acre property with the remaining acreage in reserve for future solar developments to benefit North Carolina residents.

